### Before the FEDERAL COMMUNICATIONS COMMISSION Washington, DC 20554

In the Matter of	)	
	)	
Petition of Qwest Corporation for Forbearance	)	WC Docket No. 07-97
Pursuant to 47 U.S.C. §160(c) in the Denver,	)	
Colorado Metropolitan Statistical Area	)	

## **Comments of the Colorado Public Utilities Commission**

Chairman Ron Binz Commissioner Polly Page Commissioner Carl Miller 1560 Broadway, Suite 250 Denver, Colorado 80202

## **Table of Contents**

I. Introduction and Summary	2
Regulatory Relief Sought by Qwest	
A. Dominant Carrier Status	
B. Unbundling Obligations	6
C. Computer Inquiry III Requirements	7
D. FCC Forbearance Tests	7
II. Discussion	
A. Competitive Environment	8
1. Entry Barriers	
2. Effective Competition is the Appropriate Standard to Use in Evaluating th	ne
Propriety of Forbearance	15
3. Intramodal versus Intermodal Competition	18
a. Residential Market	20
b. Small to Medium Sized Business Market	
c. Large Business Market	23
B. Section 251 Unbundling Authority as Outlined in the Triennial Review Ord	er
and Triennial Review Remand Order	23
C. Assessment of Effective Competition in the Denver MSA	27
III. Conclusion	

## I. Introduction and Summary

On April 27, 2007 Qwest Corporation (Qwest) filed a Petition at the Federal Communications Commission (FCC) pursuant to 47 U.S.C. §160(c) requesting forbearance from dominant carrier regulation, certain unbundling obligations, and certain Computer III requirements throughout the Denver Metropolitan Statistical Area (MSA). Qwest simultaneously filed similar petitions for forbearance in the Minneapolis, Phoenix, and Seattle MSAs.

Qwest's Denver Petition identifies various competitive alternatives to its services. Qwest's analysis relies substantially on the presence and services available from a single local cable provider, Comcast Phone of Colorado, LLC (Comcast). Qwest argues that Comcast and other competitive providers offer services in the Denver MSA more widely than did Cox and other providers in the Omaha MSA at the time the FCC partially granted that petition for forbearance in 2005. It follows, concludes Qwest, that the FCC should similarly grant forbearance in the Denver MSA.

In its Omaha Forbearance Order, 20 FCC Rcd 19415 (2005), the FCC, at ¶ 2 stresses that "each case must be judged on its own merits" and that it adopts therein "no rules of general applicability." The Colorado Public Utilities Commission (COPUC) urges the FCC to apply this same paradigm by engaging in fact-specific, location-specific and market-specific analysis in determining whether any forbearance should be granted in the Denver MSA.

-

<sup>&</sup>lt;sup>1</sup> Owest Petition at ¶ 1.

While Qwest's Petition relies on competitors having exceeded the thresholds achieved in Omaha, the COPUC is unable to support Qwest's logic, for several reasons. First, the confidential data from the Omaha forbearance proceeding has not been made available in sufficient detail to enable the COPUC to compare it with the data we have collected for the Denver MSA. Second, the FCC granted only partial forbearance in 14 of 29 wire centers in the Omaha MSA. This implies that Qwest presented its data to the FCC and others at a disaggregated level.<sup>2</sup>

The Denver MSA includes 43 wire centers and spans ten counties, many of which are rural and have substantially varying levels of competition. *See* Attachments 1 and 2. Qwest has provided aggregated data in its Denver Petition, rather than a more meaningful disaggregation of data by wire center.

In its comments, the COPUC discusses Qwest's Denver MSA Petition at a general policy level and presents Colorado-specific information based on data obtained through state-specific mechanisms available to the COPUC under various rules and in various Colorado dockets. In summary, the COPUC has reached the following conclusions:

• Qwest's competition from Comcast applies mainly to the residential market where facilities-based competition exists. The data do not support the

-

<sup>&</sup>lt;sup>2</sup> The COPUC notes that on July 23, 2007, McLeodUSA Telecommunications Services, Inc. (McLeodUSA) filed a Petition for Modification of the FCC's Qwest Omaha forbearance order. In this Petition, McLeodUSA argues that the "predictive judgment" used by the FCC in its Omaha MSA forbearance decision has proven to be too optimistic. McLeodUSA alleges that Qwest has not offered a reasonably-priced replacement to its pre-forbearance wholesale offerings for UNE loops and transport. In its Petition, McLeodUSA claims that there are inadequate market incentives for Qwest to offer reasonable wholesale prices to its competitors for essential bottleneck facilities. Qwest's facility and service offerings are purportedly made without allowing McLeodUSA to negotiate terms or rates. In McLeodUSA's opinion, this demonstrates the continued market power that is exercised by Qwest in the post-forbearance environment in Omaha. McLeodUSA requests in its Petition that the forbearance granted to Qwest be revoked and that obligations be reestablished under the rules adopted in the TRRO.

conclusion that Qwest faces similar pressure from facilities-based competitors in the <u>retail business</u> market, except in three wire centers: Aurora, Denver Main and Englewood.

- The data gathered by the COPUC indicates that neither Comcast nor any other wholesale carrier is making available unbundled loops to CLECs, meaning that Qwest is still the monopoly wholesale provider to CLECs which rely on unbundled network elements to provide service to business customers.
- The FCC should not grant forbearance in any exchange in which the TRRO "non-impairment" standard cannot be met.
- The FCC's analysis should not rely on promised, yet speculative, competition in business markets as a basis for removing the unbundling requirement; actual competition is the appropriate standard.
- The FCC's analysis should be granular, recognizing the widely differing characteristics (e.g., customer density, extent of Comcast's footprint) of the wire centers of the Denver MSA.
- Facilities-based competition may eventually develop in the business market served by CLECs today. It is neither necessary nor desirable to damage existing UNE-based competition by eliminating the unbundling requirement in an attempt to spur the development of facilities-based competition in that market.
- Unbundled network elements remain a necessary input into the competition present in today's local exchange markets in the Denver MSA. Eliminating the unbundling requirement is not likely to increase competition in

the short run. Instead, it will threaten the existence of many of the competitive alternatives available to the business customers served by CLECs today.

#### **Regulatory Relief Sought by Qwest**

In its Denver Petition, Qwest requests forbearance in three categories; a) dominant carrier status; b) unbundling obligations; and c) Computer Inquiry III requirements.

#### A. Dominant Carrier Status

Qwest requests relief in the mass markets and enterprise market arena from the application of:

- 47 C.F.R. §§61.32, 61.33, 61.38, 61.58, and 61.59 Dominant Carrier Tariff
   Requirements.
  - 47 C.F.R. §§61.41-61.49 Dominant Carrier Price Cap Regulations
- §214 of the 1996 Telecommunications Act (1996 Act) Dominant Carrier requirements concerning the process for acquiring lines, discontinuing services, and making assignments or transfers of control.

Forbearing from regulation in these areas will affect the terms and conditions under which Qwest provides interstate services, such as interstate special access circuits. It will also affect the terms and conditions for its local wholesale services. Changes in Qwest's regulations at the interstate level will be driven, however, by the evaluation of the intrastate marketplace's level of competition. The granting of forbearance, based on intrastate and local competition, will have impacts on both the interstate and intrastate services of non-Qwest providers of services. These providers will be influenced by both

changes in the terms and conditions of special access in the interstate and intrastate arena, as well as alterations in the availability and price of local wholesale products; however, in these comments the COPUC focuses on Qwest's unbundling obligations and the effect forbearance from these obligations will have on other carriers and end users in Colorado.

#### **B.** Unbundling Obligations

Qwest correctly recognizes the ongoing need to meet certain requirements of \$\\$251 and 271 (e.g., \\$251(c)(1) Interconnection) if competition is to exist in any telecommunications market. Accordingly, Qwest seeks forbearance only from \\$251(c)(3) loop and transport unbundling and from the corresponding \\$271 obligations. In this area, Qwest seeks forbearance for transport facilities and loops of all capacities (e.g., DS-0, DS-1, and DS-3 loops).

In its Triennial Review Remand Order (TRRO)<sup>3</sup>, the FCC set forth criteria by which an Incumbent Local Exchange Carrier (ILEC) could gain relief from its obligation to provide loop and transport unbundled elements. The COPUC opened Docket No. 06M-080T<sup>4</sup> at the request of Qwest and multiple Competitive Local Exchange Carriers (CLECs) to determine which Colorado wire centers meet such criteria and to develop the appropriate detailed support required to make such a determination. This COPUC docket and its evident relationship to the instant forbearance petition are discussed in Section II.5.

\_

<sup>&</sup>lt;sup>3</sup> Unbundled Access to Network Elements, Review of the §251 Unbundling Obligations of Incumbent Local Exchange Carriers, WC Docket No. 04-313, CC Docket No. 01-338, Order on Remand (TRRO). 
<sup>4</sup> See Docket No. 06M-080T, In The Matter of the Joint Competitive Local Exchange Carriers' Request Regarding the Status of Impairment in Qwest Corporation's Wire Centers and the Applicability of the Federal Communications Commission's Triennial Review Remand Order.

Additionally, the COPUC has available CLEC and Qwest data stemming from its oversight of Certificates of Public Convenience and Necessity (CPCNs), Letters of Registration (LORs), tariffs, annual report filings, and the COPUC's market competition survey. The market survey is detailed in Section II.6.

## **C.** Computer Inquiry III Requirements

In its Petition, Qwest seeks relief from 47 C.F.R. §§63.03, 63.04, & 63.60-63.66 – Computer Inquiry III requirements including Comparably Efficient Interconnection (CEI) and Open Network Architecture (ONA). CEI requires that, if a carrier offers an enhanced service, it is required to offer competitors such network interconnection opportunities (or collocation) that are comparably efficient to the self-provided interconnection that its enhanced service enjoys. ONA rules govern the overall design of a communication carrier's basic network facilities and services to permit all users of the basic network to interconnect to specific basic network functions and interfaces on an unbundled, equal-access basis. 6

#### **D. FCC Forbearance Tests**

In analyzing the Qwest Omaha Forbearance Petition pursuant to 47 U.S.C. §160(a), the FCC used three primary tests. The first test, §10(a)(1), required that the FCC determine whether enforcement of the regulations at issue was not necessary to ensure that charges, practices, classifications or regulations by Qwest are not unjustly or unreasonably discriminatory. The second test, §10(a)(2), required a determination of

\_

<sup>&</sup>lt;sup>5</sup> http://www.atis.org/tg2k/\_comparably\_efficient\_interconnection.html

<sup>&</sup>lt;sup>6</sup> http://www.atis.org/tg2k/ open network architecture.html

whether enforcement was unnecessary for the protection of consumers. The third test, \$10(a)(3), assessed whether forbearance was consistent with the public interest.

Two additional tests were considered. First, the FCC, pursuant to §10(b), determined whether forbearance from enforcing the provision or regulation promoted competitive market conditions. Second, the FCC, pursuant to §10(d), determined that the requirements of §§251(c) and 271 have been fully implemented.

Of the five tests used for forbearance analysis, only the last test is easily determined. The FCC readily can and, in fact, has determined that the requirements of \$\\$251(c) and 271 have been fully implemented by virtue of its promulgation of \$251 rules six months after the passage of the 1996 Act and the fact that ILECs, including Qwest, have been granted \$271 relief in all states. The remainder of the forbearance tests has substantially less precise qualifications. In fact, a premature decision that Qwest has met these tests is highly risky because the true measure of whether granting forbearance achieves \$10 requirements can only be precisely determined over time after forbearance has been granted. Therefore, the COPUC urges the FCC to undertake a very careful analysis of the post-forbearance market impact in Omaha and to give deference to more precise market competition tests such as are defined in the TRRO.

#### II. Discussion

#### A. Competitive Environment

#### 1. Entry Barriers

Congress recognized the difficulty in effecting a transition from a monopoly market to a more competitive market. In particular, Congress recognized that significant entry barriers existed. Therefore, Congress created modes of entry that otherwise would

not have been available to incipient competitors to the incumbent carriers. First, Congress removed the legal prohibitions against multiple providers of local exchange services, the easiest barrier to remove. The second set of barriers, however, was not so easily dispatched. Congress recognized that extraordinary means were required to deal with economic entry barriers.

Those barriers were formidable in 1996 and remain formidable today. Consider the daunting task of entering the telecommunications market by deploying telephone service facilities on a ubiquitous basis. Replicating an existing network is extremely expensive and time consuming. Such entry likely is ill-advised since many local exchange telephone markets likely cannot support two ubiquitous providers. Overlain physical facilities will sometimes lead to some combination of higher prices and lower returns to investors. Further, it is simply unrealistic to believe that a new entrant would be able to replicate an existing network at a cost less than or equal to that of the incumbent. An entry strategy that overlays the existing network but which deploys the best available technology likely will lead to similar results. In short, using known technologies, a telephone network that duplicates an incumbent's network is not economically attractive and is unlikely to occur. Simply put, the revenue split between incumbent and new entrant may be insufficient to sustain both providers. However, selective geographic deployment of telephone infrastructure may be feasible under some circumstances, essentially where revenue opportunities are the greatest.

Entry decisions are obviously based on the prospect of profitable operation. The mere logical possibility of entry, whether based on sound economic decisions or not, is

\_

<sup>&</sup>lt;sup>7</sup> Revenue possibilities are obviously a function of population density, geography and topography, existing prices of wholesale and retail products, and other factors. In principle, these various determinants can vary greatly. In the Denver MSA, these factors vary over a wide range.

not enough to have a meaningful impact of the level of competition in a market. An entrant must have a reasonable opportunity to sustain itself in the market.

The absence of that realistic opportunity constitutes an entry barrier that exists even if actual entry can physically occur. If a facilities-based provider cannot earn a return commensurate with other uses of resources, then entry will be reversed. This reversal process can be unpleasant and represent significant loss of asset value and, from a societal perspective, a loss. Facilities-based entry, from the perspective of a potential entrant, is a highly risky proposition. This suggests that one would expect to find little facilities-based entry for telephone services. This expectation is indeed fulfilled in the data presented below.

Entry barriers for facilities-based entry can be summarized in the following manner. First, a high level of fixed costs and time-consuming deployment render entry a risky undertaking. Second, a large portion of those costs are sunk and not recoverable upon exit from the market. Third, investors in such an effort will demand a premium on investment, requiring the entrant to charge prices for identical services that are higher, all else being equal. Fourth, these challenges increase the likelihood of exiting the market. The sufficiency of the return in a market is a function of existing retail prices and the cost of providing service. The likelihood of earning insufficient profits in these markets can be an insurmountable entry barrier. Fifth, in order to allow both the incumbent and the entrant's services to be useful, the networks must interconnect and process traffic between them.

Thus, in order to have a chance at survival in a telephone market, facilities-based entry must be non-ubiquitous in terms of geography, selective in terms of services, and

likely will involve collateral products and services. Accordingly, the barriers to ubiquitous facilities-based entry which duplicates the product set of the incumbent's telephone services suggest that another path is required. At the same time, only facilities-based entry will have a chance of producing the favorable outcomes of an effectively competitive market.

Logically, a CLEC would build out its own facilities only if the benefit of doing so exceeds the cost and produces the anticipated returns on the investment. A recent industry report by Raymond James and Associates, Inc. (June 15, 2007) suggests that a build-out of facilities is economical only if billings per customer exceed \$3,100 per month. Absent this level of monthly billing, a CLEC would most likely continue to rely in some form on leased facilities to provide service.

Qwest is currently obligated to provide leased access to its facilities and most CLECs rely on this unbundled offering to provide their services. Comcast is under no similar obligation to provide leased services to CLECs that request the services. Comcast is not, in practice, offering wholesale access to its network to CLECs as an alternative to Qwest. The absence of competitive alternatives to CLECs for these vital service inputs and CLECs' logical reluctance to make uneconomic investments should be central in the FCC's forbearance analysis.

There is another entry barrier which is of special significance in the telephone industry. Vertical integration, most relevantly in this instance, describes the situation where a company produces and sells the same products at both the wholesale and the retail level. A vertically integrated firm can have market power in the retail market by virtue of its role in the wholesale market. The vertically integrated firm can have market

power in the wholesale market, too, especially if barriers to entry are high in the wholesale market.

With market power, a vertically integrated firm can influence the profitability of its wholesale customers that compete in the retail market. On the retail side, the vertically integrated firm can lower retail prices thereby influencing the profitability of other firms in the market. In short, by controlling the wholesale market, the vertically integrated firm can control the retail market also. This relationship is quite powerful and can be dispositive in the determination of market performance, especially if there are but a few sources of wholesale supply.

While economic theory and practice suggest that this power can be dissipated and even eliminated through entry of new suppliers, such entry presupposes limited or non-existent entry barriers. As discussed above, there are substantial entry barriers in these areas. Therefore, incumbent local telephone companies can control the local exchange market at both the wholesale and retail levels absent appropriate oversight.

Congress recognized the pervasive wholesale and retail market power of the local exchange companies and obvious difficulties encountered by prospective entrants. Accordingly, it created, by statutory fiat, two means of market entry that would otherwise not exist. The 1996 Act requires that incumbents offer at wholesale the same scope of services it offers at retail. The 1996 Act also requires the incumbents to unbundle their services and networks and sell those unbundled elements at wholesale. This approach mitigates – but does not eliminate - the entry barriers described above. In fact, this approach provides a circuit around the entry barriers only as long as the appropriate regulatory bodies *maintain* some control of the wholesale markets. Consequently,

movement toward an effectively competitive market is possible if new entrants can enter, gain a customer base and gradually move toward deployment of their facilities in the market niche of their choice. Multiple, ubiquitous facilities-based networks simply are not possible given the characteristics of the market in the Denver MSA and similarly situated local exchange markets.

Therefore, it is appropriate to adapt the standard criteria of effective competition to the instant circumstances. Effective competition requires that firms have independent sources of supply, that is, self-supply. Given the cost characteristics of this industry, some mixture of facilities-based provision, unbundled element provision, and resale provision seems to be desirable – if not imperative – in order to increase the number of suppliers and increase consumer choice. Simply, it is not only unwise, but economically impossible for five or more ubiquitous facilities-based providers to divide the existing market in the Denver MSA.<sup>8</sup> A mix of providers and production methods – unbundled elements, resale, and owned facilities in combination or isolation - is necessary. The tight duopoly, which would develop if forbearance is granted, , will not provide the benefits of competition contemplated in the 1996 Act and in economic literature. In order to maximize the beneficial effects of effective competition, a diverse set of suppliers is necessary; this in turn requires vigorous oversight of the wholesale market. Further, since barriers to facilities-based entry remain high, all available entry paths must be utilized.

These tables also illustrate the difficulty that CLECs have competing in the residential and small business markets unless they subsidize their phone service offering with other services (or at least cost-share with other products). Cable television, Internet

-

<sup>&</sup>lt;sup>8</sup> Relaxing that criterion somewhat, three is unlikely also. Two may survive, per the discussion below.

access, vertical features, toll service access, and wireless telephony can be produced jointly with basic local telephone service. This is certainly the case with Comcast. Moreover, such joint production can occur on a local, regional, national, or international basis. 10

Qwest seeks forbearance throughout the Denver MSA.<sup>11</sup> The COPUC is concerned that the ten-county Denver MSA is much too broad and diverse to be considered as a whole.<sup>12</sup> The Denver MSA spans more than 120 miles (*See* Attachment 1) ranging from Denver County, with a population density of 3,625 people per square mile, to Park County, with a density of 6.6 people per square mile.<sup>13</sup> In particular, Park, Clear Creek, Gilpin, and Elbert counties are largely rural and do not have the population nor business concentrations found in the urban centers. Among other potential reasons, this means that there are fewer CLECs offering service in these areas, as we discuss below. We believe that, in most of the Denver MSA, population and business density is simply not high enough to support multiple ubiquitous providers.

Due to the market structure and the physical characteristics of the Denver MSA, other markets must be considered in the evaluation of effective competition for telephony. Specifically, the market for local telephone services intersects with the markets for toll service, cable television distribution, and Internet access. In fact, the plant with which Comcast provides local telephone service was first deployed for the

<sup>&</sup>lt;sup>9</sup> Joint production implies both scale and scope effects. The scope effects mean that plant suited for production can easily and inexpensively be used to produce other services. The unit costs of each service falls as additional services are added to the set of products produced, relative to producing each service separately. Scale refers to the overall size of an undertaking such that unit costs fall as production levels increase.

<sup>&</sup>lt;sup>10</sup> The larger scale of operation implies, of course, a deep pocket.

<sup>&</sup>lt;sup>11</sup> Qwest Petition at page 1.

<sup>&</sup>lt;sup>12</sup> The COPUC notes that not all wire centers in the full ten-county area are included in Qwest's Petition. See Attachment 2 for the location of wire centers that are included in the petition.

<sup>&</sup>lt;sup>13</sup> 2000 U.S. Census Bureau data.

latter two services. Telephone service is an adjunct to other services such as Internet access and cable television distribution. The revenue from these products is significant – if not determinative – in defraying the cost of entry and in assuring profitable operation. In this instance, telephone service can be provided at little additional cost or at a lower average cost than would be the case if telephone service was provided on a stand alone basis. Cable television physical plant, properly adapted, can provide a variety of services thus lowering the cost of each service relative to the stand alone production of each. Such scope economies are significant in terms of cost and in this instance provide significant revenues over and above those for telephone service. Indeed, these non-telephone services may provide the majority of revenue to a cable-based provider.

As this discussion has shown, Qwest remains the dominant wholesale and retail telephone service provider in the Denver MSA. Regulatory oversight at both levels remains imperative if further progress towards a more competitive market is to occur. If the wholesale market is effectively deregulated, then Qwest will be afforded the full panoply of anticompetitive strategies and tactics that will allow Qwest to raise the cost of entry for its retail competitors. Such an outcome is completely at odds with the stated purpose of the 1996 Act.

# 2. Effective Competition is the Appropriate Standard to Use in Evaluating the Propriety of Forbearance

In order for the FCC to forbear from imposing the requirements of §§251 and 271 on Qwest in the Denver MSA, Qwest must prove that it no longer is the dominant carrier. In order to meet this burden of proof, Qwest must establish that competition of a type and level sufficient to prevent it from dictating market prices, terms, and conditions exist.

Included in this burden of proof is an affirmative demonstration that the removal of dominant carrier regulation is in the public interest.<sup>14</sup>

The proper standard, in our view, is effective competition.<sup>15</sup> Only if effective competition exists should Qwest's regulatory status be changed as requested in its Petition. As will be demonstrated below, premature forbearance will permanently arrest the development of an effectively competitive market in the local exchanges in the Denver MSA since such action will eliminate alternative sources of supply. This would allow Qwest to solidify its domination through a number of means characteristic of a tight duopoly or oligopoly.

Effective competition requires actual presence of viable firms in the market, none of which has significant market power. In evaluating a particular market the structure-conduct-performance method is appropriate. Accordingly, one important indicator of the existence of an effectively competitive retail market in the current context is the percent of the market controlled outside or independent of Qwest, that is, facilities-based CLECs. This type of CLEC is essential to the establishment of viable competition because it does not rely on Qwest's infrastructure.

-

<sup>&</sup>lt;sup>14</sup> The public interest can be served by creating and maintaining conditions which maximize the likelihood that competition can take hold and flourish. Granting forbearance as requested at this time would allow for entry barriers to be reinstated, a condition not consistent with or conducive to, encouraging competition.

<sup>&</sup>lt;sup>15</sup> Effective competition is a standard which describes conditions where market forces are sufficient to substitute for regulation of various types, including utility regulation.

<sup>&</sup>lt;sup>16</sup> Structure-conduct-performance examines a wide variety of circumstances. Structure refers to the number and size of firms in the market and uses market share analysis such as the Herfindahl-Hirschman Index (HHI). Conduct refers to the interaction of firms with one another and with customers and examines, in part, whether pricing is independent or coordinated. Performance refers to the ability of firms to charge prices in excess of reasonable costs and whether the firms and the overall market are reasonably efficient.

Other economic theories rely on less rigorous methods and are inherently unreliable. The Foremost among these is the theory of contestable markets which focuses solely on potential competition and the complete absence of entry barriers. While interesting as a theory, it has limited application in the real world. The structure-conduct-performance method explicitly analyzes entry barriers in a realistic and useful manner. Granting forbearance at this time would allow Qwest to function in a market where less competitive pressure exists because important entry vehicles are abolished. Given the existence of a virtual monopoly in the wholesale market of the Denver MSA, removing alternatives from the wholesale market can have only a deleterious effect on the viability of competition in the retail market in the Denver MSA. In order to have continued movement toward effective competition in the retail market, entry paths must be maintained and protected, not abolished. Forbearance is the exact opposite of what is needed in the Denver MSA.

\_

<sup>&</sup>lt;sup>17</sup> Contestability, on the other hand, is a measurement of potential competition. Contestability argues that the only feature required to ensure competitive pricing is the threat of entry. Briefly, contestability relies on three criteria: 1) that new entrants have equal access to technology as the incumbent; 2) there are no sunk costs, therefore, there is freedom of entry and exit; and 3) new entrants are able to enter and take market share away from the incumbent before the incumbent has a chance to react. Contestability is an interesting theory, but has little applicability to the question of forbearance in the Denver MSA.

<sup>18</sup> There is diverse literature on this topic. Two important pieces are William J. Baumol, John C. Panza and

<sup>&</sup>lt;sup>18</sup> There is diverse literature on this topic. Two important pieces are William J. Baumol, John C. Panza and Robert Willig, "Contestable Markets and the Theory of Industry Structure," San Diego: Harcourt, Brace, Jovanovich, 1982; and William Shepherd, "Contestability and Competition" American Economic Review, Vol. 74, No. 4, September, 1984 at pp. 574-587.

<sup>&</sup>lt;sup>19</sup> Contestability requires only that prospective entrants have the notional capability to enter but does not require that they actually enter the market. Translated to the instant matter, this notional entry capability requires that these companies have the financial strength to provide their own infrastructure with no reliance upon Qwest's UNEs, and be able to absorb high fixed costs and be price competitive. In addition, the high fixed costs of investing in infrastructure are deemed to be 'unsunk' and therefore fully recoverable upon market exit, rendering network costs as insignificant to the point that they are not an entry barrier.

<sup>20</sup> It is interesting to note in this case, that even contestability theory would argue against forbearance. According to that theory, abolition of the entry paths at issue in this case would erect – not abolish – entry barriers. Ironically, in a recent case before the COPUC, Qwest presented the contestability theory as a justification for regulatory relief in the retail market. *See* Decision Nos. C05-0802 and C05-0984 in Docket No. 04A-411T. In that case, Qwest argued that the availability of unbundled network elements was a justification for the granting of relaxed regulation of Qwest's retail services.

#### 3. Intramodal versus Intermodal Competition

The analysis of market competition for consumers and producers requires a review of the level and type of service alternatives available in the marketplace. These competitive alternatives can be divided into two categories: intramodal and intermodal. Intramodal competition is characterized by the providers that a customer has to choose from for essentially the same service. We include in that category any circuit-based provider of telephony services. Intermodal competition in the telecommunications market includes wireless services, Digital Subscriber Line (DSL) or cable-based Voice over Internet Protocol (VoIP), and any other non-circuit-based services.

The level and type of service alternatives, whether intramodal or intermodal, serves as a starting point for the amount of competitive alternatives for consumers. Each of these alternatives, however, can be further distinguished as a substitute or complement to the current service the customer receives, in this case telecommunication services from Qwest. A substitute is a service where a customer is indifferent to the purchase of one or another service to meet the customer's needs. A complement would be a telecommunication service that could not replace the customer's current service, but could be an additional service to be combined with the current service to provide increased functionality.

The segmentation of the market into residential, small business and large business are important factors in the analysis of intramodal and intermodal options. An alternative service for one segment of the market might be a substitute for one segment, while that same alternative service might be a very imperfect substitute or a complement for the currently purchased service.

A final characteristic of the telecommunication market alternatives is location. Unlike a good or service where the customer travels to the location of the service provider, a telecommunication service is delivered to the customer location. In that respect, intermodal and intramodal alternatives may differ, depending on the location of the customer. For example, a business customer that is in a building served by Qwest and one or more facilities-based CLECs would have substitute services that serve as competitive options. A similar business customer located at a distance from the CLEC's network may have little or no options for intramodal alternatives. Likewise, a residential customer that is in a location where high speed Internet is unavailable would not be able to substitute VoIP for traditional circuit-based services from Owest.

The FCC needs to pursue an analysis of the competitiveness of the market place based on the parameters discussed above. In other words, customer location, customer segmentation, and the menu of service alternatives available for each segment and location must be simultaneously analyzed in order to correctly characterize alternatives to Qwest services.

In its Petition, Qwest takes a very broad-brush approach to the analysis of alternatives in the Denver MSA. Qwest has not provided the granular data that will allow the FCC to undertake the multi-level investigation of the intermodal and intramodal competition discussed above. Very little location specific data is provided; much of what Qwest presents is MSA-wide data instead of specific wire center data. Qwest has broken its analysis into only two categories, mass market and enterprise, ignoring the distinctions that separate small and medium sized business from residential and enterprise market

segments. Moreover, Qwest makes general assumptions concerning whether a service is truly a substitute or a complement to a customer's existing service.

We have identified the cross-sections of the marketplace that must be addressed to undertake a legitimate review of the intermodal and intramodal alternatives available to consumers, as well as whether these alternatives provide substitutes or complements for customers. The COPUC has collected market data that will assist the FCC in examining the level of alternatives available to consumers. This data can be used to explain some important characteristics of the three customer classes discussed below.

#### a. Residential Market

The residential market in the Denver MSA is characterized overwhelmingly by a single circuit switched, facility-based service provider, Qwest. Although there is, for some customers in this segment, a possibility of getting service from a CLEC, such service would almost always be provided by the CLEC using wholesale components of the Qwest network. For this reason, this service substitute is essentially limited to pricing, billing, and customer care for the service. In the Denver MSA, CLECs are continuing to exit the residential market.<sup>21</sup> The price of leasing facilities or services from Qwest does not generally allow CLECs to complete viably for residential service. The Colorado state statute, §40-15-502(b)(I) C.R.S., sets a rate cap for residential single line basic service and exacerbates this problem for CLECs.

Data collected by the COPUC indicate that there is only one alternative facility-based provider other than Qwest in the 43 wire centers of the Denver MSA: Comcast,

\_

<sup>&</sup>lt;sup>21</sup> See for example: Docket No. 06A-105AT, In the Matter of the Application of Verizon Avenue Corp. to Discontinue or Curtail Jurisdictional Telecommunication Services, and Docket No. 07A-185AT, In the Matter of the Application of SBC Long Distance, LLC to Discontinue the Provision of Local Exchange Service for Residential Consumers in the State of Colorado.

the cable provider. Focusing on the circuit-switched category, this service is becoming a rarer option for customers, because Comcast is converting its network from a circuit-switched architecture to VoIP architecture.<sup>22</sup>

For the residential customer, facility-based alternatives to Qwest include wireless providers, as well as firms that offer VoIP on top of another provider's DSL or cable modem service. It is not apparent that the material provided by Qwest describing the marketplace makes a definitive case that wireless is a true substitute for traditional landline service. Qwest asserts that 11 percent of wireless customers in the Denver MSA have substituted wireless for wireline service; of course, this leaves 89 percent who arguably view wireless as a complement to their existing wireline service rather than a substitute.

Qwest also argues that VoIP, either through cable firms or over the top providers serves as a substitute for its traditional landline service. While this is true in one sense, there are important caveats. Importantly, VoIP is an imperfect substitute due to the two-tiered nature of VoIP. The residential consumer must purchase either cable service or DSL service as the base and then pay for a VoIP service provider on top of that base. This structure therefore requires that the customer have access to the offerings of cable modems from cable firms, or DSL from Qwest. Neither of these required services is ubiquitously available in the Denver MSA. In addition, there may be customer reluctance to accepting VoIP as a perfect substitute for traditional telephony as VoIP

\_

<sup>&</sup>lt;sup>22</sup> See Docket No. 07A-301AT, In the Matter of the Application of Comcast Phone of Colorado, LLC for an Order Authorizing It to Discontinue the Provision of Residential Facilities-Based Circuit-Switched Telecommunications Services in Colorado.

<sup>&</sup>lt;sup>23</sup> Declaration of Robert H. Brigham and David Teitzel Regarding the Status of Competition in the Denver, Colorado Metropolitan Statistical Area (*Brigham/Teitzel Declaration*).

requires additional customer premise equipment in order to translate IP transmission into voice communication.

#### b. Small to Medium Sized Business Market

The small to medium sized business segment has more restrictive choices than the residential market segment. Only 15 of the 43 wire centers in the Denver MSA have a non-Qwest facilities-based provider offering service, and in all but one of those wire centers there is a single alternative provider. The majority of CLECs serving this market make use of wholesale products and services from Qwest. While Qwest contends that Comcast is planning to offer service to this sector, the service is not yet an actual alternative, nor is it possible at this time to evaluate cable's substitutability in business markets. In addition, Comcast would need to expand its distribution network to connect to commercial locations; it is possible that some Qwest business customers would not be reached with cable telephony for a long time, if ever. It also seems likely that Comcast could "cherry-pick" to some degree, targeting the profit-rich portion of this segment.

Wireless service as a replacement (substitute) for landline services from Qwest in this sector of the market is very limited. Some selected smaller businesses in this segment of the market might use wireless exclusively, but Qwest offers no data on this point. Cellular wireless does not provide the level of bandwidth comparable to DS-1s that this segment of the market favors. Wireless is mainly an augmentation to, not a replacement for, wireline services for this segment.

#### c. Large Business Market

This segment of the market is characterized by the purchase of a broad range of services: voice lines, data lines, advanced features. and in some cases telecommunications management services. The level of substitutes is limited to Owest and other facility-based providers with the capability to serve large customers, often at disparate locations. The CLECs would need to have fiber terminating in these locations, and the question is whether the CLECs have extended facilities in a ubiquitous enough area to provide substitutes to the entire class and location of these customers. While most wire centers contain a CLEC presence, CLEC penetration exceeds 20 percent of the lines in only two wire centers. Although Comcast has a facilities-based cable footprint in a portion of the Denver MSA, its customers are predominantly residential. Comcast just recently announced a plan to enter the small business market in the future. It is not known whether Comcast will offer business voice services to enterprise customers with the need for significant voice and data channels. The COPUC does not have the jurisdiction over cable providers or the authority to request information from Comcast regarding these unregulated services.

# B. Section 251 Unbundling Authority as Outlined in the Triennial Review Order and Triennial Review Remand Order

A stated goal of the 1996 Act was to establish open market competition by intermodal and intramodal service providers as well as to ultimately reduce the need for regulation where competition is self-sustaining for the benefit of the American consumer. The TRO, released on August 21, 2003, and the TRRO, released February 4, 2005, were declared to be the updated "rules and policies" that set forth a framework to continue

toward the goals of the 1996 Act reflecting today's environment and striking the required balance between infrastructure investment, innovation, and sustainable competition.<sup>24</sup> In fact, the TRO is stated to have specifically addressed Congress's unbundling intent which recognizes market entry barriers balanced against the "societal costs" of unbundling.<sup>25</sup>

The unbundling framework implemented in the TRO and TRRO followed years of extensive and thorough analysis of the data provided by incumbent and competitive providers, industry groups, government entities and end users. The resulting framework determined an unbundling requirement based on an "impairment" analysis that assessed whether a competitor's lack of access to an unbundled element creates a barrier to market entry. 26 While the FCC concluded that excessive unbundling requirements undermined the incentive of competitors and incumbents to invest in and deploy new technologies, it maintained unbundling requirements for existing network elements in wire centers deemed to still be "impaired."

The TRRO further refined the framework of the impairment analysis specified in the TRO. It resulted in an even more limited set of required unbundled elements, based on court guidance to sustain innovation and competition and to encourage rational investment by competitors and incumbents in the telecommunications market place.<sup>27</sup>

With regard to the unbundled elements for which Qwest seeks forbearance from §251(c) requirements, the TRRO did not reverse the decision to require the ILEC to continue to provide DS-0 (copper, conditioned copper, and line split) loops but did qualify the requirement to provide DS-1 and DS-3 loops based on fiber based collocator

<sup>&</sup>lt;sup>24</sup> TRO at ¶ 6. <sup>25</sup> *Ibid* at ¶ 5.

<sup>&</sup>lt;sup>27</sup> TRRO at ¶ 2.

and business line threshold requirements in individual wire centers. The TRRO similarly set thresholds for DS-1 and DS-3 unbundled transport based on the competitive presence of fiber based collocators and business lines.

Qwest has filed two applications with the COPUC to have certain wire centers designated as "non-impaired" for DS-1 and DS-3 transport and loops. Based on Qwest's own analysis, as of the end of year 2006, only 14 of 43 of the wire centers in the Denver MSA (about one third) meet some non-impairment standard. While Qwest claims that all 14 of the wire centers meet the thresholds for DS-3 transport, only eight, or 19 percent, of the Denver MSA wire centers meet the DS-1 transport threshold, only three of the Denver MSA wire centers meet the DS-3 loop threshold, and only one of the wire centers meet the DS-1 loop threshold.

**Qwest Wire Center Non-Impairment Matrix**<sup>29</sup>

Wire Center	DS-3 Transport	DS-1 Transport	DS-3 Loop	DS-1 Loop
Arvada	X			
Aurora	X			
Broomfield	X			
Denver Capitol Hill	X	X		
Denver Curtis Park	X	X		
Denver Dry Creek	X	X	X	X
Denver East	X	X	X	
Denver Main	X	X	X	
Denver South	X			
Denver Southeast	X	X		
Denver Sullivan	X	X		
Englewood Aberdeen	X	X		
Lakewood	X			
Northglenn	X			

 $<sup>^{28}</sup>$  See Docket Nos. 06M-080T and 07A-249T.

<sup>&</sup>lt;sup>29</sup> As of the filing of these comments, the Commission has not issued a ruling on the final list of non-impaired wire centers. The matrix above represents Qwest's advocacy in the pending dockets.

Qwest now seeks relief from these same unbundling requirements plus others (e.g., DS-0 loops) under the forbearance standard contained in §10 of the 1996 Act. Section 10 requires the FCC to forbear from any statutory provision or regulation if it determines that: (1) enforcement from the regulation is not necessary to ensure that charges and practices are just and reasonable, and are not unjustly or unreasonably discriminatory; (2) enforcement of the regulation is not necessary to protect consumers; (3) forbearance is consistent with the public interest; and (4) whether forbearance from enforcing the provision or regulation will promote competitive market conditions.<sup>30</sup> The 1996 Act is not inconsistent between §§10 and 251 in promoting Congress' intent to protect consumers and the public interest through promoting competitive market conditions.

In its Denver Petition, Qwest relies heavily on thresholds from types of intermodal competition (e.g., cable and wireless) that were contemplated and relied upon in the partial grant of forbearance in its Omaha Petition. Yet, the TRO and TRRO also accounted for intermodal competition when considering the issues of consumer protection, public interest, and the promotion of competitive market conditions for wireline competition<sup>31</sup> and still determined that DS-0 loops are impaired and DS-1 and DS-3 transport and loops may be impaired within certain wire centers. The COPUC urges the FCC to explain this seeming contradiction in standards and limit any grant of forbearance to individual wire centers where the standards set forth in the TRO and

<sup>&</sup>lt;sup>30</sup> FCC 05-170 Memorandum Opinion and Order in WC Docket No. 04-223 – In the Matter of Petition of Qwest Corporation for Forbearance Pursuant to 47 U.S.C. §160(c) in the Omaha Metropolitan Statistical Area, ¶ 13.

 $<sup>^{31}</sup>$  TRO at ¶ 5 – The framework set forth in this order recognizes that this competition is taking place on an intermodal basis – between wireline providers and providers of services on other platforms such as cable and wireless – and on an intermodal basis among wireline providers with different business and operational plans.

TRRO can be met. Otherwise, the Commission must determine that additional data shows that applying the TRO and TRRO standards would create an undesirable anomaly. We are unsure that such an anomaly could exist.

## C. Assessment of Effective Competition in the Denver MSA

To assess the competitiveness of telecommunications markets in Colorado, the COPUC recently undertook a thorough study of all aspects of the telecommunications market relevant to the regulation of telephone services.<sup>32</sup> As part of that study, the COPUC gathered data from every available source. In April 2007, the COPUC issued an audit question to all telecommunications carriers in Colorado, requesting information about the carriers' retail and wholesale services. Responses were due on June 15, 2007.

Those carriers providing retail local exchange service were asked to provide detailed information about their line counts by wire center, separately for residential, small business, and large business customers.<sup>33</sup> Providers of wholesale services were asked to provide line counts by wire center. As of July 27, 2007, a total of 23 CLECs had indicated that they provide local retail service in the Denver MSA via their own facilities, QPP/QLSP, UNE-P, or UNE-L. Five CLECs indicated that they offer facilities-based wholesale telecommunications services in the Denver MSA.<sup>34</sup> Although data have not been received from all carriers providing service in the MSA, based on information provided through COPUC annual reports, the COPUC is confident that the reporting

<sup>33</sup> The COPUC distinguishes large business as those non-residential customers having six or more lines, pursuant to §40-15-401(k), Colorado Revised Statutes. Small business is therefore considered to be non-residential customers with five and fewer lines.

27

<sup>&</sup>lt;sup>32</sup> See Docket No. 04A-411T, Decision Nos. C04-0082 and C04-0982.

<sup>&</sup>lt;sup>34</sup> The concentration of facilities-based wholesale providers ranges from zero in several wire centers to five in Denver Main.

CLECs represent the near-totality of the Denver MSA. Should additional relevant data become available, the COPUC reserves the right to update its present filing.

The COPUC's market study data is useful in the instant matter. Effective competition requires providers that are independent of Qwest thus facilities-based CLECs are of primary interest and relevance for the following markets: total; large business; small business; and, residential. Effective competition generally specifies that about five firms be present and that the market shares be roughly equivalent. Applying that criterion to the instant matter suggest there should be five facilities-based firms in the marketplace each with roughly a 20 percent market share. On that basis, the MSA taken as a whole does not fulfill that requirement. Further, there are no wire centers where Qwest has only a 20 percent market share. Therefore, on either an aggregated or disaggregated basis, no wire center is effectively competitive. Stated differently, 80 percent or more of the lines in each wire center must be provided by a facilities-based CLEC. However, of the 43 Qwest wire centers in the Denver MSA only three wire centers areas have a CLEC market share of 20 percent or more. Those wire centers are Aurora, Denver Main, and Englewood. Table 1 provides a summary.

Table 1: Percent Share of Total Lines Provided by CLECs in "Competitive" Wire Centers Within the Denver MSA

Wire Center	Residential	Small Business	Large Business	Total
	Market	Market	Market	
Aurora	39.2 %	45.5 %	59.5 %	43.6 %
Denver Main	31.5 %	43.9 %	23.4 %	28.4 %
Englewood	11.9 %	14.1 %	45.8 %	27.9 %

<sup>&</sup>lt;sup>35</sup> See Attachment 3.

In Aurora and Denver Main, there is only one facilities-based provider of residential service. Similarly, within the small business market there is only one facilities-based CLEC provider, and for the large business market there are three facilities-based CLEC service providers.

An appropriate evaluation of competition in the Denver MSA requires an analysis of the total market penetration of CLECs with and without the wire centers included in Table 1. This is illustrated in Table 2. As can be clearly seen from Tables 1. and 2. the Denver MSA lacks competition in an overall sense; instead competitive activity is highly concentrated in a few wire centers.

Table 2: Average Percent Share of Total Lines Provided by Facilities-Based CLECs in the Denver MSA

	Residential	Small Business	Large	Total
	Market	Market	Business	
			Market	
All 43 Wire Centers	4.9 %	4.1 %	5.4 %	5.2 %
Wire Centers Excluding				
Those in Table1.	3.2 %	1.8 %	2.6 %	3.1 %

Most notably, the data show that, for residential service, only Comcast provides facilities-based service in the MSA,<sup>36</sup> with 14 wire centers having no facilities-based providers at all.<sup>37</sup> (*See* Attachment 4) Two CLECs reported providing facilities-based

29

\_

<sup>&</sup>lt;sup>36</sup> One carrier reported one facilities-based residential line in the Larkspur wire center.

<sup>&</sup>lt;sup>37</sup> No facilities-based small business lines were reported for the Aurora Monaghan, Central City, Deckers, Denver Capitol Hill, Denver Columbine, Denver Curtis Park, Denver Dry Creek, Denver East, Denver Montbello, Denver Northeast, Denver North, Denver International Airport, Denver Southeast, Denver Smoky Hill, Denver Sullivan, Denver South, Denver Southwest, Denver West, Elbert, Elizabeth, Englewood Aberdeen, Georgetown, Idaho Springs, Kiowa, Lookout Mountain, Larkspur, Morrison, or Northglenn wire centers.

service for small businesses, with no facilities-based small business service in 28 wire centers. Large businesses are served by three facilities-based CLECs, with seven wire centers having no facilities-based carriers other than Qwest. In total, five wire centers had no facilities-based CLEC at all. Although some facilities-based CLECs exist in the remaining wire centers, they account for less than ten percent of all lines in total in all wire centers except Aurora (43.6 percent), Denver Main (28.4 percent), and Englewood (27.9 percent).

In terms of wholesale facilities-based providers, a total of five CLECs reported providing service in the Denver MSA. However, these carriers are present in only 24 of the 43 wire centers and are a significant presence in only the Denver Main wire center, where all five are present. Three CLECs offer facilities-based wholesale service in Aurora, and two are present in Denver Dry Creek. In two wire centers, there are two facilities-based wholesale CLECs and there are two such carriers in the Denver Dry Creek, Denver South, Englewood, and Lakewood wire centers. For the residential market, Comcast is the only true threat of entry and only a few CLECs can survive independent of Qwest's UNEs. Thus, the likely outcome of forbearance is duopoly. In most instances, a duopoly is virtually indistinguishable from a monopoly.

\_

<sup>&</sup>lt;sup>38</sup> No facilities-based small business lines were reported for the Aurora Monaghan, Central City, Deckers, Denver Capitol Hill, Denver Columbine, Denver Curtis Park, Denver Dry Creek, Denver East, Denver Montbello, Denver Northeast, Denver North, Denver International Airport, Denver Southeast, Denver Smoky Hill, Denver Sullivan, Denver South, Denver Southwest, Denver West, Elbert, Elizabeth, Englewood Aberdeen, Georgetown, Idaho Springs, Kiowa, Lookout Mountain, Larkspur, Morrison, or Northglenn wire centers.

<sup>&</sup>lt;sup>39</sup> No facilities-based CLECs reported large business service in the Aurora Monaghan, Bailey, Central City, Georgetown, Kiowa, or Larkspur wire centers. (There are no large business lines in the Deckers wire center.)

<sup>&</sup>lt;sup>40</sup> No CLEC facilities-based lines were reported for the Aurora Monaghan, Central City, Deckers, Georgetown, or Kiowa wire centers. One residential line was reported in Larkspur.

<sup>&</sup>lt;sup>41</sup> One facilities-based wholesale CLEC was reported in the Arvada, Brighton, Broomfield, Deckers, Denver Capitol Hill, Denver Columbine, Denver Curtis Park, Denver East, Denver Southeast, Denver Smoky Hill, Denver Sullivan, Denver Southwest, Englewood Aberdeen, Golden, Georgetown, Littleton, Northglenn, and Westminster wire centers.

Table 3: Illustration of Duopoly in the Residential Market

	Qwest Market Share	Comcast Market Share
Comcast with 0 %		
Houses Passed	100 %	0 %
Comcast with 60 %		
Houses Passed	70 %	30 %
Comcast with 75 %		
Houses Passed	62.5 %	37.5 %

Table 3 assumes 50 percent of the customers that have Comcast as a viable alternative to Qwest will choose Comcast as the two companies would simply be competing on price as their services are perfect substitutes. This means if Qwest originally starts out controlling the entire market and Comcast has market penetration potential of 60 to 75 percent that half of the 60 to 75 percent will go to Comcast with the other half going to Qwest. Therefore the maximum market share Comcast can hope to control is 37.5 percent with Qwest controlling a minimum 62.5 percent. This illustrates the maximum level of competition that will ever exist in the Denver MSA. So, unless regulation remains in place in one form or another - such as a price cap - tacit collusion and joint market dominance likely will occur between Qwest and Comcast sharing a *de facto* monopoly. Neither consumers nor businesses in the Denver MSA will benefit from such an arrangement.

## **III.** Conclusion

In considering petitions for forbearance such as Qwest's, the FCC has stressed that "each case must be judged on its own merits," without employing "rules of general applicability." *See* Omaha Forbearance Order, 20 FCC Rcd 19415 (2005), *supra*. Nonetheless, the FCC recognizes that 47 U.S.C. §160(a) sets a threshold standard requiring consideration of three tests: 1) whether enforcement of the regulations at issue

is not necessary to ensure that charges, practices, classifications or regulations by Qwest are not unjustly or unreasonably discriminatory; 2) whether enforcement is unnecessary for the protection of consumers' and 3) whether forbearance is consistent with the public interest. With the Omaha Forbearance Petition, the FCC considered two additional tests. First, pursuant to 47 U.S.C. §10(b), to determine whether forbearance from certain provisions or regulations promotes competitive market conditions. Second, pursuant to 47 U.S.C. §10(d), to determine that the requirements of §§251(c) and 271 have been fully implemented.

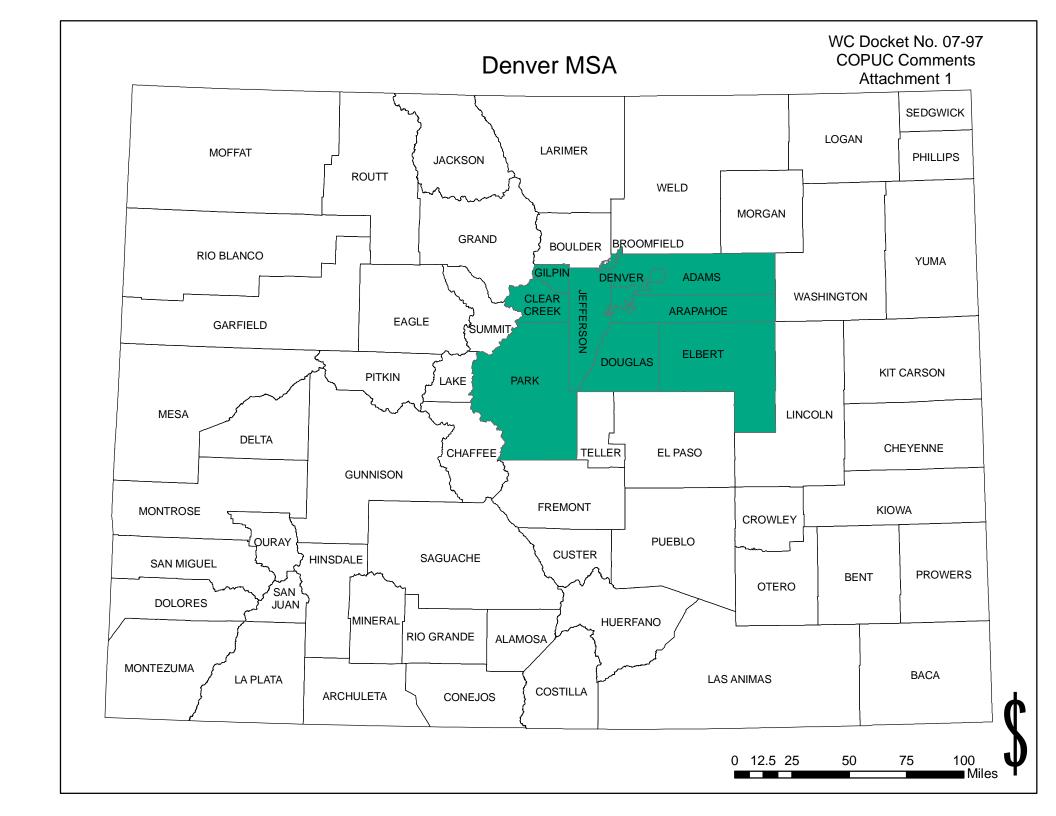
As the data provided above indicate, on either an aggregated or disaggregated basis, no wire center in the Denver MSA can be considered effectively competitive. It cannot be successfully argued that Comcast provides effective competition for Qwest within the total Denver MSA when its services apply predominantly to the <u>residential</u> market where facilities-based competition exists, especially when it is apparent that Qwest does not face similar competition from facilities-based competitors in the retail <u>business</u> market. Nor can it be refuted that Qwest retains monopoly status as a wholesale provider to CLECs competing for the retail business market.

COPUC further urges the FCC to consider that UNEs remain a necessary cog to cultivate competition in the local exchange markets in the Denver MSA. Eliminating the unbundling requirement cannot have the effect of increasing competition, but rather may in fact threaten the existence of many of the competitive alternatives available to business customers served by CLECs in the current environment. It is reasonable to assume that facilities-based competition may eventually develop in the business market served by CLECs. Therefore, the market is not served by damaging existing UNE-based

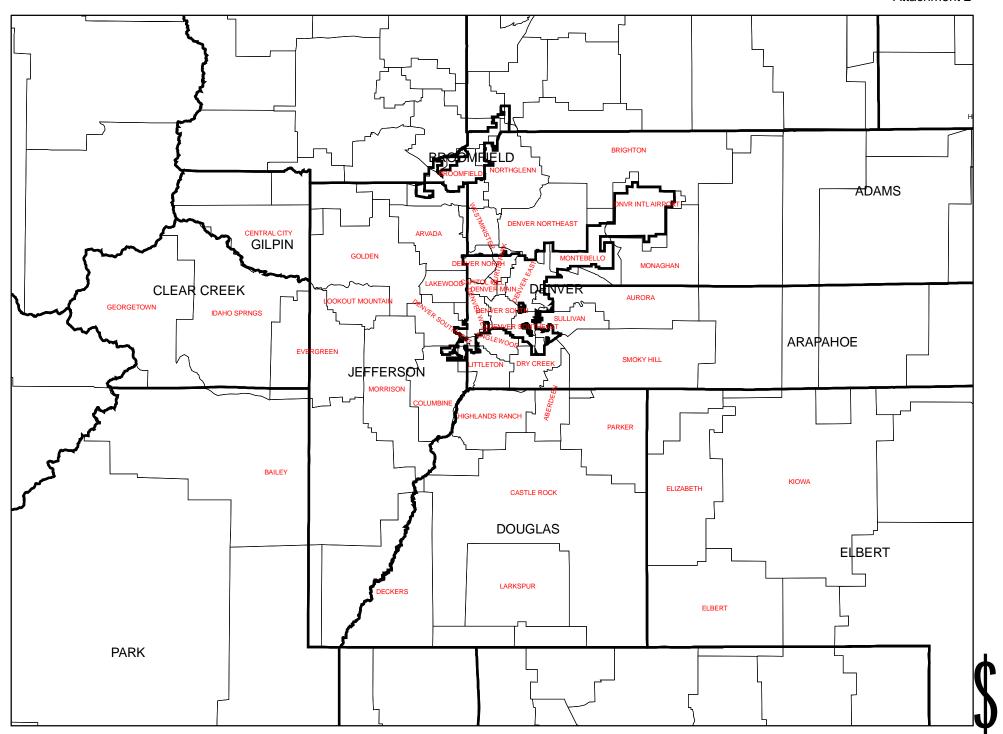
competition by eliminating the unbundling requirement in order to affect the development of facilities-based competition in the Denver MSA market.

We additionally urge the FCC to conduct a granular analysis in order to recognize the various and differing characteristics of the wire centers contained in the Denver MSA. As provided *supra*, the Denver MSA includes 43 wire centers and encompasses ten counties, many of which are rural and contain widely disparate levels of competition. Clearly, customer density within these 43 wire centers and ten counties concomitantly varies widely. Comcast's footprint is not as deep in the outlying rural counties as it is in central Denver and its closest suburbs.

While many barriers to entry have been removed, economic barriers remain monolithic. The FCC should not base its decision on forbearance in the Denver MSA on unsubstantiated promises and dubious speculation. Given the lack of competition and the formidable economic barriers to entry that remain in the Denver MSA today, we urge the FCC to consider Qwest's Petition on a highly granular level in order to ensure that its decision meets the critical tests of whether forbearance results in protection for consumers, is in the public interest, and promotes competitive market conditions. COPUC asserts that Qwest's Petition fails on all counts.



# Denver MSA Wire Centers & Counties



		% of Total: CLEC	% of Total UNE-P/	% of Total:
Name	<b>Total lines</b>	Facilities-Based	QPP/QLSP	UNE-L
ARVADA	66,184	9.1%	3.4%	3.0%
AURORA	74,455	43.6%	2.4%	1.5%
AURORA MONAGHAN	462	0.0%	3.0%	0.0%
BAILEY	10,984	0.4%	0.7%	0.0%
BRIGHTON	19,283	1.7%	0.6%	0.0%
BROOMFIELD	46,388	7.3%	3.9%	0.9%
CENTRAL CITY	2,692	0.0%	0.7%	0.0%
CASTLE ROCK	30,726	0.5%	1.1%	0.0%
DECKERS	412	0.0%	2.4%	0.0%
DENVER CAPITOL HILL	23,188	1.0%	2.1%	5.3%
DENVER COLUMBINE	50,313	0.7%	1.8%	0.4%
DENVER CURTIS PARK	28,665	1.0%	2.7%	5.7%
DENVER DRY CREEK	69,373	1.5%	1.9%	3.9%
DENVER EAST	62,555	0.7%	2.3%	3.7%
DENVER MAIN	98,614	28.4%	8.1%	2.8%
DENVER MONTBELLO	24,184	1.8%	3.2%	0.1%
DENVER NORTHEAST	28,365	5.7%	3.3%	0.0%
DENVER NORTH	25,803	6.4%	2.1%	0.6%
DENVER INT'L AIRPORT	2,346	1.3%	7.3%	0.0%
DENVER SOUTHEAST	34,611	2.7%	2.6%	4.8%
DENVER SMOKY HILL	53,117	8.0%	1.8%	0.8%
DENVER SULLIVAN	61,813	6.1%	3.1%	2.0%
DENVER SOUTH	31,448	3.4%	2.5%	4.0%
DENVER SOUTHWEST	44,829	6.6%	3.5%	4.0%
DENVER WEST	27,968	8.3%	2.1%	2.1%
ELBERT	1,087	0.1%	0.3%	0.3%
ELIZABETH	5,994	0.2%	0.6%	0.0%
ENGLEWOOD ABERDEEN	34,812	2.4%	1.9%	0.2%
ENGLEWOOD	35,917	27.9%	4.0%	5.2%
EVERGREEN	16,219	1.0%	0.6%	0.0%
GOLDEN	24,923	6.8%	2.3%	0.8%
GEORGETOWN	1,266	0.0%	2.2%	0.0%
IDAHO SPRINGS	2,535	0.3%	1.9%	0.0%
KIOWA	1,400	0.0%	1.1%	0.0%
LOOKOUT MOUNTAIN	4,811	0.2%	2.0%	0.0%
LAKEWOOD	36,642	8.2%	3.2%	3.3%
LARKSPUR	2,666	0.0%	0.3%	0.2%
LITTLETON HIGHLANDS RANCH	34,987	6.5%	1.3%	0.1%
LITTLETON	43,421	5.2%	5.8%	1.8%
MORRISON	6,477	0.1%	1.7%	0.0%
NORTHGLENN	47,783	3.4%	1.8%	0.4%
PARKER	27,914	5.3%	2.6%	0.0%
WESTMINSTER	36,899	8.3%	3.8%	4.5%

## 31 Dec. 2006 Large Business

% of Total:

		CLEC	% of Total:	0/ of Totals
Nama	Total lines	Facilities-	UNE-P/	% of Total:
Name	Total lines	Based	QPP/QLSP	UNE-L
ARVADA	10,390	3.1%	5.6%	18.5%
AURORA MONACHANI	26,049	59.5%	2.3%	
AURORA MONAGHAN	131	0.0%	2.3%	
BAILEY	346	0.0%	0.0%	0.0%
BRIGHTON	2,625	3.2%	1.1%	
BROOMFIELD	9,828	13.3%	4.1%	4.2%
CENTRAL CITY	619	0.0%	0.0%	0.0%
CASTLE ROCK	3,397	2.8%	2.8%	0.0%
DECKERS	0	0.0%	0.0%	0.0%
DENVER CAPITOL HILL	10,696	2.0%	2.6%	11.4%
DENVER COLUMBINE	4,624	2.2%	2.9%	3.9%
DENVER CURTIS PARK	16,517	1.5%	2.5%	
DENVER DRY CREEK	27,402	3.1%	2.4%	
DENVER EAST	16,497	1.4%	3.9%	
DENVER MAIN	67,519	23.4%	7.1%	
DENVER MONTBELLO	8,258	3.6%	1.2%	0.3%
DENVER NORTHEAST	6,236	0.2%	1.6%	
DENVER NORTH	6,015	0.5%	3.3%	1.9%
DENVER INT'L AIRPORT	1,675	1.8%	9.3%	0.0%
DENVER SOUTHEAST	10,074	2.1%	4.7%	16.3%
DENVER SMOKY HILL	3,743	0.8%	2.4%	11.9%
DENVER SULLIVAN	13,748	6.2%	2.8%	
DENVER SOUTH	7,748	3.8%	4.2%	16.0%
DENVER SOUTHWEST	8,845	0.5%	5.0%	19.2%
DENVER WEST	3,382	1.4%	4.9%	17.4%
ELBERT	26	3.9%	0.0%	11.6%
ELIZABETH	212	3.8%	0.0%	0.0%
ENGLEWOOD ABERDEEN	20,860	1.8%	1.5%	
ENGLEWOOD	14,027	45.8%	4.8%	13.4%
EVERGREEN	1,562	2.6%	0.3%	0.0%
GOLDEN	7,665	5.1%	1.3%	2.7%
GEORGETOWN	119	0.0%	0.0%	0.0%
IDAHO SPRINGS	159	5.0%	3.1%	0.0%
KIOWA	60	0.0%	0.0%	0.0%
LOOKOUT MOUNTAIN	664	0.6%	0.0%	0.0%
LAKEWOOD	9,485	0.6%	3.1%	12.3%
LARKSPUR	147	0.0%	0.7%	4.1%
LITTLETON HIGHLANDS RANCH	4,767	1.0%	0.8%	0.5%
LITTLETON	7,961	13.8%	5.6%	9.7%
MORRISON	230	1.3%	2.2%	0.0%
NORTHGLENN	7,076	3.9%	1.5%	2.8%
PARKER	2,167	3.4%	2.4%	0.0%
WESTMINSTER	7,537	4.1%	6.1%	21.7%

### 31 Dec. 2006 Small Business

% of Total:

		CLEC	% of Total:	0/ of Total:
Name	Total Lines	Facilities- Based	UNE-P/ QPP/QLSP	% of Total: UNE-L
ARVADA	8,822	1.1%	5.6%	0.4%
AURORA	7,464	12.6%	4.6%	1.4%
AURORA MONAGHAN	134	0.0%	6.7%	0.0%
BAILEY	1,443	3.3%	4.6%	0.0%
BRIGHTON	2,915	8.1%	2.4%	0.0%
BROOMFIELD	6,297	10.5%	4.1%	0.2%
CENTRAL CITY	381	0.0%	5.0%	0.0%
CASTLE ROCK	4,409	1.1%	3.9%	0.2%
DECKERS	51	0.0%	19.6%	0.0%
DENVER CAPITOL HILL	4,793	0.0%	2.8%	0.5%
DENVER COLUMBINE	5,193	0.0%	4.4%	0.0%
DENVER CURTIS PARK	6,035	0.0%	4.8%	0.1%
DENVER DRY CREEK	9,923	0.0%	3.1%	0.4%
DENVER EAST	9,856	0.0%	4.8%	0.6%
DENVER MAIN	17,329	45.5%	3.3%	5.6%
DENVER MONTBELLO	3,196	0.0%	5.1%	0.1%
DENVER NORTHEAST	4,755	0.0%	6.3%	0.0%
DENVER NORTH	3,875	0.0%	4.8%	1.1%
DENVER INT'L AIRPORT	671	0.0%	2.5%	0.0%
DENVER SOUTHEAST	5,499	0.0%	4.4%	0.3%
DENVER SMOKY HILL	4,839	0.0%	5.2%	0.0%
DENVER SULLIVAN	7,654	0.0%	5.4%	0.4%
DENVER SOUTH	5,459	0.0%	5.3%	0.1%
DENVER SOUTHWEST	5,075	0.0%	7.1%	1.5%
DENVER WEST	3,693	0.0%	4.7%	0.0%
ELBERT	91	0.0%	3.3%	0.0%
ELIZABETH ENGLEWOOD ABERDEEN	733 6,585	0.0% 0.0%	3.0% 4.0%	0.0% 0.3%
ENGLEWOOD ABERDEEN ENGLEWOOD	8,097	43.9%	3.7%	0.5%
EVERGREEN	2,527	4.7%	3.8%	0.0%
GOLDEN	3,971	6.3%	5.2%	0.0%
GEORGETOWN	290	0.0%	9.7%	0.0%
IDAHO SPRINGS	494	0.0%	8.1%	0.0%
KIOWA	191	0.0%	8.4%	0.0%
LOOKOUT MOUNTAIN	519	0.0%	4.0%	0.0%
LAKEWOOD	6,610	12.5%	5.0%	0.9%
LARKSPUR	202	0.0%	3.0%	0.0%
LITTLETON HIGHLANDS RANCH	3,420	5.2%	4.3%	0.0%
LITTLETON	6,415	14.1%	6.0%	0.0%
MORRISON	626	0.0%	6.5%	0.0%
NORTHGLENN	5,125	0.0%	3.8%	0.1%
PARKER	3,745	0.6%	5.7%	0.0%
WESTMINSTER	5,169	7.6%	6.0%	0.2%

31 Dec. 2006 Residential

Name	Total Lines	% of Total: CLEC Facilities- Based	% of Total: UNE-P/ QPP/QLSP	% of Total: UNE-L
ARVADA	46,972	11.9%	2.5%	0.0%
AURORA	40,942	39.2%	2.0%	0.0%
AURORA MONAGHAN	197	0.0%	1.0%	0.0%
BAILEY	9,195	0.0%	0.1%	0.0%
BRIGHTON	13,743	0.0%	0.1%	0.0%
BROOMFIELD	30,263	4.7%	3.7%	0.0%
CENTRAL CITY	1,692	0.0%	0.0%	0.0%
CASTLE ROCK	22,920	0.0%	0.3%	0.0%
DECKERS	361	0.0%	0.0%	0.0%
DENVER CAPITOL HILL	7,699	0.3%	1.0%	0.0%
DENVER COLUMBINE	40,496	0.6%	1.3%	0.0%
DENVER CURTIS PARK	6,113	0.6%	0.9%	0.0%
DENVER DRY CREEK	32,048	0.6%	1.1%	0.0%
DENVER EAST	36,202	0.6%	0.9%	0.0%
DENVER MAIN	13,766	31.5%	19.1%	0.0%
DENVER MONTBELLO	12,730	1.1%	3.9%	0.0%
DENVER NORTHEAST	17,374	9.2%	3.1%	0.0%
DENVER NORTH	15,913	10.1%	1.0%	0.0%
DENVER INT'L AIRPORT	0	0.0%	0.0%	0.0%
DENVER SOUTHEAST	19,038	3.8%	1.1%	0.0%
DENVER SMOKY HILL	44,535	9.4%	1.4%	0.0%
DENVER SULLIVAN	40,411	7.2%	2.7%	0.0%
DENVER SOUTH	18,241	4.2%	0.9%	0.0%
DENVER SOUTHWEST	30,909	9.5%	2.5%	0.0%
DENVER WEST	20,893	10.9%	1.1%	0.0%
ELBERT	970	0.0%	0.0%	0.0%
ELIZABETH	5,049	0.1%	0.3%	0.0%
ENGLEWOOD ABERDEEN	7,367	6.5%	1.1%	0.0%
ENGLEWOOD	13,793	0.4%	3.2%	0.0%
EVERGREEN	12,130	0.0%	0.0%	0.0%
GOLDEN	13,287	7.9%	2.0%	0.0%
GEORGETOWN	857	0.0%	0.0%	0.0%
IDAHO SPRINGS	1,882	0.0%	0.1%	0.0%
KIOWA	1,149	0.0%	0.0%	0.0%
LOOKOUT MOUNTAIN	3,628	0.2%	2.1%	0.0%
LARKODUR	20,547	10.3%	2.6%	0.0%
LARKSPUR	2,317	0.0%	0.0%	0.0%
LITTLETON HIGHLANDS RANCH	26,800	7.6%	1.1%	0.0%
LITTLETON	29,045	0.8%	5.8%	0.0%
MORRISON NORTHGLENN	5,621	0.0%	1.1%	0.0%
PARKER	35,582 22,002	3.8% 6.3%	1.6% 2.1%	0.0% 0.0%
WESTMINSTER	24,193	9.8%	2.6%	0.0%
VVLOTIVIIINOTEIX	24,193	3.0 /0	2.0 %	0.0%

		% of Total: CLEC	% of Total UNE-P/	% of Total:
Name	<b>Total lines</b>	Facilities-Based	QPP/QLSP	UNE-L
AURORA MONAGHAN	462	0.0%	3.0%	0.0%
CENTRAL CITY	2,692	0.0%	0.7%	0.0%
DECKERS	412	0.0%	2.4%	0.0%
GEORGETOWN	1,266	0.0%	2.2%	0.0%
KIOWA	1,400	0.0%	1.1%	0.0%
LARKSPUR	2,666	0.0%	0.3%	0.2%
MORRISON	6,477	0.1%	1.7%	0.0%
ELBERT	1,087	0.1%	0.3%	0.3%
ELIZABETH	5,994	0.2%	0.6%	0.0%
LOOKOUT MOUNTAIN	4,811	0.2%	2.0%	0.0%
IDAHO SPRINGS	2,535	0.3%	1.9%	0.0%
BAILEY	10,984	0.4%	0.7%	0.0%
CASTLE ROCK	30,726	0.5%	1.1%	0.0%
DENVER COLUMBINE	50,313	0.7%	1.8%	0.4%
DENVER EAST	62,555	0.7%	2.3%	3.7%
DENVER CURTIS PARK	28,665	1.0%	2.7%	5.7%
EVERGREEN	16,219	1.0%	0.6%	0.0%
DENVER CAPITOL HILL	23,188	1.0%	2.1%	5.3%
DENVER INT'L AIRPORT	2,346	1.3%	7.3%	0.0%
DENVER DRY CREEK	69,373	1.5%	1.9%	3.9%
BRIGHTON	19,283	1.7%	0.6%	0.0%
DENVER MONTBELLO	24,184	1.8%	3.2%	0.1%
ENGLEWOOD ABERDEEN	34,812	2.4%	1.9%	0.2%
DENVER SOUTHEAST	34,611	2.7%	2.6%	4.8%
NORTHGLENN	47,783	3.4%	1.8%	0.4%
DENVER SOUTH	31,448	3.4%	2.5%	4.0%
LITTLETON	43,421	5.2%	5.8%	1.8%
PARKER	27,914	5.3%	2.6%	0.0%
DENVER NORTHEAST	28,365	5.7%	3.3%	0.0%
DENVER SULLIVAN	61,813	6.1%	3.1%	2.0%
DENVER NORTH	25,803	6.4%	2.1%	0.6%
LITTLETON HIGHLANDS RANCH DENVER SOUTHWEST	34,987	6.5%	1.3%	0.1%
	44,829	6.6%	3.5%	4.0%
GOLDEN	24,923	6.8% 7.3%	2.3%	0.8%
BROOMFIELD	46,388 53,117		3.9%	0.9%
DENVER SMOKY HILL	•	8.0%	1.8%	0.8%
LAKEWOOD DENVER WEST	36,642	8.2%	3.2%	3.3%
	27,968	8.3%	2.1%	2.1%
WESTMINSTER ARVADA	36,899 66,184	8.3%	3.8%	4.5%
	•	9.1%	3.4%	3.0%
ENGLEWOOD DENVER MAIN	35,917	27.9%	4.0%	5.2%
DENVER MAIN	98,614	28.4%	8.1%	2.8%
AURORA	74,455	43.6%	2.4%	1.5%

## 31 Dec. 2006 Large Business

% of Total:

		CLEC Facilities-	% of Total: UNE-P/	% of Total:
Name	Total lines	Based	QPP/QLSP	UNE-L
AURORA MONAGHAN	131	0.0%	2.3%	0.0%
BAILEY	346	0.0%	0.0%	0.0%
CENTRAL CITY	619	0.0%	0.0%	0.0%
DECKERS	0	0.0%	0.0%	0.0%
GEORGETOWN	119	0.0%	0.0%	0.0%
KIOWA	60	0.0%	0.0%	0.0%
LARKSPUR	147	0.0%	0.7%	4.1%
DENVER NORTHEAST	6,236	0.2%	1.6%	0.0%
DENVER SOUTHWEST	8,845	0.5%	5.0%	19.2%
DENVER NORTH	6,015	0.5%	3.3%	1.9%
LAKEWOOD	9,485	0.6%	3.1%	12.3%
LOOKOUT MOUNTAIN	664	0.6%	0.0%	0.0%
DENVER SMOKY HILL	3,743	0.8%	2.4%	11.9%
LITTLETON HIGHLANDS RANCH	4,767	1.0%	0.8%	0.5%
MORRISON	230	1.3%	2.2%	0.0%
DENVER EAST	16,497	1.4%	3.9%	13.8%
DENVER WEST	3,382	1.4%	4.9%	17.4%
DENVER CURTIS PARK	16,517	1.5%	2.5%	9.8%
DENVER INT'L AIRPORT	1,675	1.8%	9.3%	0.0%
ENGLEWOOD ABERDEEN	20,860	1.8%	1.5%	0.2%
DENVER CAPITOL HILL	10,696	2.0%	2.6%	11.4%
DENVER SOUTHEAST	10,074	2.1%	4.7%	16.3%
DENVER COLUMBINE	4,624	2.2%	2.9%	3.9%
EVERGREEN	1,562	2.6%	0.3%	0.0%
CASTLE ROCK	3,397	2.8%	2.8%	0.0%
ARVADA	10,390	3.1%	5.6%	18.5%
DENVER DRY CREEK	27,402	3.1%	2.4%	9.8%
BRIGHTON	2,625	3.2%	1.1%	0.0%
PARKER	2,167	3.4%	2.4%	0.0%
DENVER MONTBELLO	8,258	3.6%	1.2%	0.3%
ELIZABETH	212	3.8%	0.0%	0.0%
DENVER SOUTH	7,748	3.8%	4.2%	16.0%
NORTHGLENN	7,076	3.9%	1.5%	2.8%
ELBERT	26	3.9%	0.0%	11.6%
WESTMINSTER	7,537	4.1%	6.1%	21.7%
IDAHO SPRINGS	159	5.0%	3.1%	0.0%
GOLDEN	7,665	5.1%	1.3%	2.7%
DENVER SULLIVAN	13,748	6.2%	2.8%	9.0%
BROOMFIELD	9,828	13.3%	4.1%	4.2%
LITTLETON DENI/ED MAIN	7,961	13.8%	5.6%	9.7%
DENVER MAIN	67,519	23.4%	7.1%	2.6%
ENGLEWOOD	14,027	45.8%	4.8%	13.4%
AURORA	26,049	59.5%	2.3%	3.9%

#### 31 Dec. 2006 Small Business

% of Total:

		CLEC Facilities-	% of Total: UNE-P/	% of Total:
Name	Total Lines	Based	QPP/QLSP	UNE-L
AURORA MONAGHAN	134	0.0%	6.7%	0.0%
CENTRAL CITY	381	0.0%	5.0%	0.0%
DECKERS	51	0.0%	19.6%	0.0%
DENVER CAPITOL HILL	4,793	0.0%	2.8%	0.5%
DENVER COLUMBINE	5,193	0.0%	4.4%	0.0%
DENVER CURTIS PARK	6,035	0.0%	4.8%	0.1%
DENVER DRY CREEK	9,923	0.0%	3.1%	0.4%
DENVER EAST	9,856	0.0%	4.8%	0.6%
DENVER INT'L AIRPORT	671	0.0%	2.5%	0.0%
DENVER MONTBELLO	3,196	0.0%	5.1%	0.1%
DENVER NORTH	3,875	0.0%	4.8%	1.1%
DENVER NORTHEAST	4,755	0.0%	6.3%	0.0%
DENVER SMOKY HILL	4,839	0.0%	5.2%	0.0%
DENVER SOUTH	5,459	0.0%	5.3%	0.1%
DENVER SOUTHEAST	5,499	0.0%	4.4%	0.3%
DENVER SOUTHWEST	5,075	0.0%	7.1%	1.5%
DENVER SULLIVAN	7,654	0.0%	5.4%	0.4%
DENVER WEST	3,693	0.0%	4.7%	0.0%
ELBERT	91	0.0%	3.3%	0.0%
ELIZABETH	733	0.0%	3.0%	0.0%
ENGLEWOOD ABERDEEN	6,585	0.0%	4.0%	0.3%
GEORGETOWN	290	0.0%	9.7%	0.0%
IDAHO SPRINGS	494	0.0%	8.1%	0.0%
KIOWA	191	0.0%	8.4%	0.0%
LARKSPUR	202	0.0%	3.0%	0.0%
LOOKOUT MOUNTAIN	519	0.0%	4.0%	0.0%
MORRISON	626	0.0%	6.5%	0.0%
NORTHGLENN	5,125	0.0%	3.8%	0.1%
PARKER	3,745	0.6%	5.7%	0.0%
CASTLE ROCK	4,409	1.1%	3.9%	0.2%
ARVADA	8,822	1.1%	5.6%	0.4%
BAILEY	1,443	3.3%	4.6%	0.0%
EVERGREEN	2,527	4.7%	3.8%	0.0%
LITTLETON HIGHLANDS RANCH	3,420	5.2%	4.3%	0.0%
GOLDEN	3,971	6.3%	5.2%	0.0%
WESTMINSTER	5,169	7.6%	6.0%	0.2%
BRIGHTON	2,915	8.1%	2.4%	0.0%
BROOMFIELD	6,297	10.5%	4.1%	0.2%
LAKEWOOD	6,610	12.5%	5.0%	0.9%
AURORA	7,464	12.6%	4.6%	1.4%
LITTLETON	6,415	14.1%	6.0%	0.0%
ENGLEWOOD DENI/ED MAIN	8,097	43.9%	3.7%	0.0%
DENVER MAIN	17,329	45.5%	3.3%	5.6%

31 Dec. 2006 Residential

Name	Total Lines	% of Total: CLEC Facilities- Based	% of Total: UNE-P/ QPP/QLSP	% of Total: UNE-L
AURORA MONAGHAN	197	0.0%	1.0%	0.0%
BRIGHTON	13,743	0.0%	0.1%	0.0%
CENTRAL CITY	1,692	0.0%	0.0%	0.0%
DECKERS	361	0.0%	0.0%	0.0%
DENVER INT'L AIRPORT	0	0.0%	0.0%	0.0%
ELBERT	970	0.0%	0.0%	0.0%
GEORGETOWN	857	0.0%	0.0%	0.0%
IDAHO SPRINGS	1,882	0.0%	0.1%	0.0%
KIOWA	1,149	0.0%	0.0%	0.0%
BAILEY	9,195	0.0%	0.1%	0.0%
MORRISON	5,621	0.0%	1.1%	0.0%
LARKSPUR	2,317	0.0%	0.0%	0.0%
CASTLE ROCK	22,920	0.0%	0.3%	0.0%
EVERGREEN	12,130	0.0%	0.0%	0.0%
ELIZABETH	5,049	0.1% 0.2%	0.3%	0.0%
LOOKOUT MOUNTAIN DENVER CAPITOL HILL	3,628 7,699	0.2%	2.1% 1.0%	0.0% 0.0%
ENGLEWOOD	13,793	0.3%	3.2%	0.0%
DENVER DRY CREEK	32,048	0.6%	1.1%	0.0%
DENVER CURTIS PARK	6,113	0.6%	0.9%	0.0%
DENVER COLUMBINE	40,496	0.6%	1.3%	0.0%
DENVER EAST	36,202	0.6%	0.9%	0.0%
LITTLETON	29,045	0.8%	5.8%	0.0%
DENVER MONTBELLO	12,730	1.1%	3.9%	0.0%
NORTHGLENN	35,582	3.8%	1.6%	0.0%
DENVER SOUTHEAST	19,038	3.8%	1.1%	0.0%
DENVER SOUTH	18,241	4.2%	0.9%	0.0%
BROOMFIELD	30,263	4.7%	3.7%	0.0%
PARKER	22,002	6.3%	2.1%	0.0%
ENGLEWOOD ABERDEEN	7,367	6.5%	1.1%	0.0%
DENVER SULLIVAN	40,411	7.2%	2.7%	0.0%
LITTLETON HIGHLANDS RANCH	26,800	7.6%	1.1%	0.0%
GOLDEN DENVER NORTHEAST	13,287 17,374	7.9% 9.2%	2.0% 3.1%	0.0% 0.0%
DENVER MORTHLAST DENVER SMOKY HILL	44,535	9.4%	1.4%	0.0%
DENVER SOUTHWEST	30,909	9.5%	2.5%	0.0%
WESTMINSTER	24,193	9.8%	2.6%	0.0%
DENVER NORTH	15,913	10.1%	1.0%	0.0%
LAKEWOOD	20,547	10.3%	2.6%	0.0%
DENVER WEST	20,893	10.9%	1.1%	0.0%
ARVADA	46,972	11.9%	2.5%	0.0%
DENVER MAIN	13,766	31.5%	19.1%	0.0%
AURORA	40,942	39.2%	2.0%	0.0%